

# COHU HD

## Series 3930<sup>HD</sup> H.264 High Definition IP67 Fixed Camera System

# Helios



**ONVIF**  
Profile S

- Superior HD Image Quality
- Powerful 30x Optical Zoom
- Electronic Image Stabilization
- Defog/Dehaze Analytics
- H.264/MJPEG Codecs
- Web Server Configuration, Operation and Viewing
- Automated Event Actions
- Pressurized IP67 Protection
- NEMA TS2 Temperature Range, -40°C to 74°C
- NTCIP 1205 over IP Communication Support
- PoE+ Power
- Single Connector Simplicity
- Pendant, Wall, Pole and Corner Mounting Options
- ONVIF Profile S Compliant

CohuHD's 3930<sup>HD</sup> fixed camera system combines crystal clear HD image quality, bandwidth efficient H.264 compression and IP67 protection delivering the Cohu quality and performance you expect!

The 3930<sup>HD</sup> includes a choice of 720p30 cameras with up to 30x\* optical zoom, delivering full frame rate HD images over the entire zoom range.

The built-in zoom capability enables up to 30x optical magnification in high definition and achieves quick subject tracking through its high speed auto focusing system. True day/night technology using a removable IR cut filter produces exceptional low light sensitivity down to 0.005 lx\*.

For installations subject to wind or vibration, electronic image stabilization\* assures a steady, clear image and enables the system designer to utilize existing bridge sign and traffic light poles for camera mounting.

The 3930<sup>HD</sup> includes defog\* image processing capability, enhancing video performance in foggy conditions encountered in surveillance and traffic monitoring applications.

Providing multiple video stream capability, the 3930<sup>HD</sup> delivers two independently configured H.264 streams or an H.264 with MJPEG output.

The 3930<sup>HD</sup> provides a full function web server, allowing complete administrative and operator control capabilities. Administrative features include configuring network settings, user password assignments, setting video streaming properties, configuring camera imaging properties and assigning camera ID labels.

The 3930<sup>HD</sup> is designed to operate in harsh weather with its IP67 enclosure protection. This eliminates the effects of water intrusion, pollutants and corrosives.

CohuHD delivers years of clean, reliable images and backs it with a world class two year warranty.

  
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For design help, accessories or pricing, please contact:  
[sales@avsupply.com](mailto:sales@avsupply.com) or call: 1-858-565-1101

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**CAMERA**

Sensor Type  
Scanning System  
Pixel Array  
Active Resolution  
Frame Rate  
Camera Type  
Day/Night Modes

**18x CAMERA**

1/3" CCD  
Progressive  
1296 x 966  
1280 x 720  
30 fps  
Day/Night (IR Cut Filter)  
Auto, Color, B/W

**30x CAMERA**

1/3" CCD  
Progressive  
1296 x 966  
1280 x 720  
30 fps  
Day/Night (IR Cut Filter)  
Auto, Color, B/W

**SENSITIVITY**

Color, 1/30, f1.6, 50 IRE  
Color, 1/30, f1.6, 30 IRE  
Monochrome, 1/30, f1.6, 50 IRE  
Monochrome, 1/4, f1.6, 30 IRE

1.8 lux (0.18 fc)  
0.74 lux (0.074 fc)  
0.18 lux (0.018 fc)  
0.02 lux (0.002 fc)

0.5 lux (0.05 fc)  
0.3 lux (0.03 fc)  
0.05 lux (0.005 fc)  
0.005 lux (0.0005 fc)

**LENS/OPTICS**

Zoom Lens  
Aperture (f stop)  
HAFOV  
Focus  
Iris  
Digital Zoom

18x, 4.7 to 84.6mm  
1.6 -> 2.8  
55.2° to 3.2°  
Auto / Manual [Near, Far]  
Auto / Manual [Open, Close]  
Not Available

30x, 4.4 to 132mm  
1.4 -> 4.6  
62.9° to 2.2°  
Auto / Manual [Near, Far]  
Auto / Manual [Open, Close]  
2x

**IMAGE PROCESSING**

Image Stabilization  
Dynamic Range Mode  
Back Light Comp Mode  
Shutter/Integration  
Defog Mode  
S/N Ratio

Not Available  
On/Off  
On/Off  
1/4 -> 1/10,000  
Not Available  
> 50db

Off/On [5 Hz or 10 Hz]  
On/Off  
On/Off  
1/4 -> 1/10,000  
Off/On [3 Levels + Color Saturation]  
> 50db

**IP VIDEO**

Streams Two (2) Individually configurable streams  
Codecs H.264 and MJPEG  
Configurations H.264 + H.264  
H.264 + MJPEG  
Resolutions Stream 1 [720p, D1]  
Stream 2 [D1, CIF]  
Frame Rates 30, 15, 7.5, 6, 5, 3.75, 3,  
2, 1.875, 1 [Note: Stream 2 must be <= to Stream 1 frame rate]  
Data Rates Stream 1 [8 Mb to 256Kb]  
Stream 2 [2 Mb to 256Kb]  
Camera Latency Four (4) Frames [0.133 sec]

**VIDEO CONNECTIONS**

RTP/RTSP Eight (8) H.264, Eight (8) MJPEG  
RTSP/Interleave Eight (8) H.264, Eight (8) MJPEG  
RTSP Multicast Eight (8) H.264, Eight (8) MJPEG  
HTTP Multicast Unlimited, H.264 and MJPEG  
HTTP Tunneling Two (2) H.264, Ten (10) MJPEG  
MPEG2 TS Unlimited, H.264 and MJPEG

**NETWORK INTERFACE**

Network Format Ethernet 802.3 (100BaseT-TX)  
Network Protocol TCP, UDP, IPv4, IGMP, ICMP, DNS, DHCP, RTP, RTSP, NTP, HTTP, ARP, ONVIF Profile S  
Media Players VLC, Quick Time or any media player compliant with RFC 2326, 3984, 3550, 2435, ISO/IEC 13818-1  
ONVIF Support Profile S  
Camera Protocols Cohu T, Profile S, NTCIP 1205  
Security Yes, 4 Levels

### ON SCREEN DISPLAY (OSD)

#### IP VIDEO OSD

Up to four OSD elements are selectable for inclusion in the camera's two IP video streams. (Note: Three elements maximum on a single stream. The OSD elements display on top or bottom of image, on right side of video. The logo element displays on top or bottom of image on left side.

#### Standard Font Size

Camera Title 24 characters  
Time/Date 24 Hour Format, Time Zone  
Logo Display xxx.bmp format, 96 x 96 pixels maximum, in multiples of 32 pixels

#### Large Font Size

Camera Title 15 characters

### EVENT MANAGEMENT

#### DIGITAL I/O

Digital Inputs Two (2) Sensor Inputs, Dry contact, N.O or N.C  
Digital Outputs Two (2) Control Output, Open collector

#### TRIGGERS

Internal Timer Interval [Off, 1 Second to 999 hours], Duration [ Off, 1 Second to Indefinite]  
Digital Inputs Active Input Triggers Action

#### ACTIONS

FTP Snapshot Captures Image and sends to FTP site folder  
Digital Output Activates a Digital Output  
EMAIL Sends message to EMAIL address

### MECHANICAL

Construction Powder coated aluminum. External parts corrosion protected with stainless steel fasteners.  
Weight 5.5 lbs (2.5 Kg) w/o wiper  
9 lbs (4.1 kg) w/wiper  
Dimensions No Wiper: 15.0" D x 5.1" W x 4.9" H [381 mm x 130 x 125]  
With Wiper: 15.0" D x 5.1" W x 7.5" H [381 mm x 130 x 191]  
Connector Type 18 Pin MS  
Shipping Dims 10 lbs [4.5 Kg], 20" x 13" x 13" [508 mm x 330 mm x 330 mm]

### ELECTRICAL

Input Voltage PoE+ 802.3at  
Power 10 w heater/wiper off  
25 w heater or wiper on  
Transients EN55022:2010  
EN55024:2010

### ENVIRONMENTAL

Protection Rating IP67, Pressurized with Dry Nitrogen, 3.5 psi  
Operating Temp -40°F to 165°F (-40°C to 74°C) Per NEMA TS2, para. 2.2.7.3 - 2.2.7.7  
Note: Minimum operating temperatures are with a 2 hour warm-up.  
Water Spray Per IEC 60529+A1, 1999, Para 14.2.6, Solid water stream delivered thru 12.5mm nozzle @ 25 gallons/minute @ 9 ft for 3 minutes  
Humidity 0-100%  
Vibration Per Nema-TS2 para 2.1.10, 2.2.4  
Shock Per Nema-TS2 para 2.1.10, 2.2.4  
Corrosion Prot. Per Nema 250-2003, para 5.10

### CERTIFICATIONS

FCC Class A  
CISPR 22/24  
ASTM-B117 Marine

### ACCESSORIES

#### Mounts

7411498-001 Mast Arm Mount  
7411498-002 Pole Mount  
7411499-001 Pedestal Mount  
7411499-002 Wall Mount

#### Cables

CA257 Series  
CA258 Series

#### Connectors

MS Type 1310230-011

#### Power Supplies

PoE+ (IP50) 7411539-001

#### Wiper Blade

Replacement Assy 8139078-001



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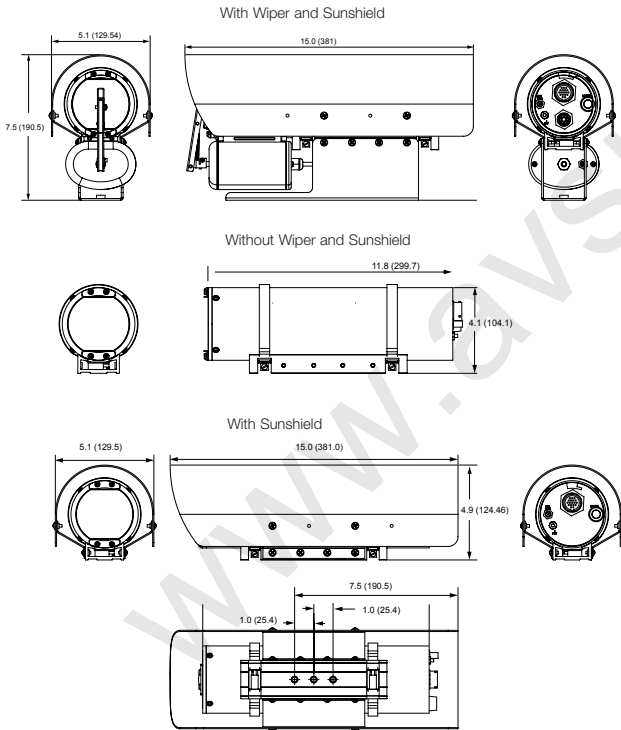
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### ORDERING MODEL NUMBERS

| PRODUCT MODEL STRUCTURE |   |
|-------------------------|---|
| HD1 X - X X X X         | OPTION DESCRIPTION                                      |
| HD1                     | PRODUCT SERIES  |
| HD1                     | HELIOS IP67 HIGH DEFINITION FIXED CAMERA SYSTEM         |
| X                       | OPERATING POWER   |
| 1                       | POE, NETWORK SUPPLIED POWER                             |
| 5                       | POE, INCLUDES MID-SPAN POE INJECTOR                     |
| X                       | CAMERA OPTIONS  |
| 1                       | 720P30 x18 HDTV CAMERA                                  |
| 2                       | 720P30 x18 HDTV CAMERA, WITH FACEPLATE WIPER            |
| 3                       | 720P30 x30 HDTV CAMERA WITH EIS AND DEFOG               |
| 4                       | 720P30 x30 HDTV CAMERA WITH EIS AND DEFOG WITH FP WIPER |
| X                       | SOFTWARE OPTIONS  |
| 0                       | STANDARD SUITE / NTCIP 1205 OVER IP                     |
| X                       | UNASSIGNED  |
| 0                       | NONE  |
| X                       | SUNSHIELD   |
| 0                       | WITHOUT SUNSHIELD                                       |
| 1                       | WITH SUNSHILED  |

### DIMENSIONS



Dimensions in inches (mm)

### CONNECTOR PINOUT

| Pin | Function      |
|-----|---------------|
| D   | TX +          |
| E   | TX -          |
| F   | RX +          |
| H   | RX -          |
| B   | POE +         |
| C   | POE +         |
| T   | POE -         |
| K   | POE -         |
| L   | No Connection |
| A   | No Connection |
| R   | No Connection |
| S   | No Connection |
| J   | ALM IN 1      |
| M   | ALM IN 2      |
| N   | ALM 3 (I/O)   |
| P   | ALM 4 (I/O)   |
| G   | ALM COM       |
| U   | Cable Shield  |

